

### ABSTRACT OF THE DISCLOSURE

An apparatus and method for automatically dispensing a radioactive dose by filling a container, such as a vial or disposable syringe, with a required radioactive dose in a sterile environment; the apparatus being stand alone and radioactive-shielded. The apparatus further includes a control device for accurately dispensing and diluting the required radioactive dose using an online radioactivity measurement, which does not require knowledge of the volumetric radioactivity of the stock solution.